**DEPARTMENT OF TRANSPORTATION**
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

# WELDING INSPECTION REPORT

**Resident Engineer:** Casey, William
**Address:** 333 Burma Road
**City:** Oakland, CA 94607

**Report No:** WIR-027041
**Date Inspected:** 13-Jan-2012

**Project Name:** SAS Superstructure
**Prime Contractor:** American Bridge/Fluor Enterprises, a JV
**Contractor:** American Bridge/Fluor Enterprises, a JV

**OSM Arrival Time:** 700
**OSM Departure Time:** 1530
**Location:** Job Site

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|---|---|---|---|---|---|---|---|---|
| **CWI Name:** | See Below | | | **CWI Present:** | ☑ Yes | ☐ No | |
| **Inspected CWI report:** | ☐ Yes | ☑ No | ☐ N/A | **Rod Oven in Use:** | ☑ Yes | ☐ No | ☐ N/A |
| **Electrode to specification:** | ☑ Yes | ☐ No | ☐ N/A | **Weld Procedures Followed:** | ☑ Yes | ☐ No | ☐ N/A |
| **Qualified Welders:** | ☑ Yes | ☐ No | ☐ N/A | **Verified Joint Fit-up:** | ☑ Yes | ☐ No | ☐ N/A |
| **Approved Drawings:** | ☑ Yes | ☐ No | ☐ N/A | **Approved WPS:** | ☑ Yes | ☐ No | ☐ N/A |
| | | | | **Delayed / Cancelled:** | ☐ Yes | ☑ No | ☐ N/A |

**Bridge No:** 34-0006
**Component:** OBG

**Summary of Items Observed:**

At the start of the shift this Quality Assurance Lead Inspector (QAI) traveled to the SAS project site and observed the work and the inspection performed by American Bridge/Fluor Enterprises (AB/F) Quality Control (QC) personnel. The observations and inspections were performed as noted below:

A). This Quality Assurance Lead Inspector (QALI) assigned the QA Inspectors to the following, but not limited to the work station(s) listed , to observe the welding and the QC inspection of the following:

Doug Frey-OBG E12 and E13(Observation of welding and QC inspection on the lifting lug holes), OBG field splice E12/E13 (Observation of repair welding and QC inspection of side and bottom plate splice identified accordingly as "E1, E2" & "D1") and QA/NDE verification.

Ken Riley-OBG W12 (Observation of repair and production welding and QC inspection of LLH) and Crossbeam 19 (Temporary attachments-QA/NDE verification).

Craig Hager-Observation of the modifications of the existing bike path panels as per the CCO: 193 and ABF Submittal 2549 R1.

NOTE: See QA daily Weld Inspection Reports (WIR) and NDE reports for additional information and details.

Quality Assurance Lead Inspector (QALI) Summary

This QA Lead Inspector (QALI) observed the QA Inspector's Douglas Frey, Craig Hager and Ken Riley monitor the work performed by the QC inspectors at random intervals and also observed the QA Inspectors verify the welding parameters, the minimum preheat and the maximum interpass temperatures for compliance with the contract specifications. The QAI's utilized a Fluke 337 clamp meter to measure the electrical welding parameters, Tempil Heat Indicators and/or a Fluke 63 IR Thermometer for verifying the preheat and interpass temperatures. At the conclusion of the shift, this QA Lead Inspector discussed and reviewed the work performed by the QAI's in regards to the various observations and the verifications of the WPS's, consumables, welding parameters, preheat and interpass temperatures. The QAI observations of the QC inspection and verification of the welding parameters performed on this date appeared to comply with the contract specifications and no issues was noted on this date. This QALI also verified the following in progress work:

FW Spencer/Pipe Welding of Utility Systems

This QALI observed the fit-up and CJP welding of the pipe 2.5" and 4" utility service system field splices. The welding was performed by FW Spencer personnel Damian LLanos, identification # 6645, utilizing the WPS identified as 1-12-1 and was utilized by the QC Inspector, Steve Jensen, and were noted as 88 amps. The work performed on this date was located at the west OBG W1 through W3 along grid line W2 between PP19 and PP27. Later in the shift, Mr. Jensen, requested QA verification of the following pipe welds:

| WATER SYSTEM | COMPRESSED AIR SYSTEM |
|---|---|
| 14/2.5"/21/NW | 14/4"/21/NW |

The QA verification of the above items appeared to comply with the contract specifications.

The in process welding and the inspection performed by the QC inspector Mr. Jensen appeared to comply with the contract specifications.

This QA Inspector continued the daily review of field inspection reports and update of the field document control tracking records regarding the Orthotropic Box Girders (OBG, Longitudinal and Transverse "A" Deck Stiffeners, Deck Access Holes and the Tower Shear plates).

**Summary of Conversations:**

There were general conversations with Quality Control Lead Inspector, Bonifacio Daquinag, Jr., at the start of the shift regarding the location of welding, inspection personnel scheduled for this shift.

Crossbeam 19 Issue

This QALI had a conversation with QAI Ken Riley regarding the QA/NDE verification results at the conclusion of the Magnetic Particle Testing (MPT), Mr. Riley noted one linear indication at one of the temporary attachment areas located and identified as Temporary Attachment #3 West (west indicates the 3rd attachment starting from the west end of the crossbeam). At the conclusion of this conversation this QALI informed Mr. Riley that the course of action to be taken by the contractor was acceptable provided that the QC Lead Inspector, Bonifacio Daquinag, Jr. submits the dimensions and other pertinent information to the WQCM to generate an RWR.

# WELDING INSPECTION REPORT

*( Continued Page 3 of 3 )*

**Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

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|---|---|---|
| **Inspected By:** | Reyes,Danny | Quality Assurance Inspector |
| **Reviewed By:** | Levell,Bill | QA Reviewer |